Policy Brief : Can the GDPR help SMEs innovate for older adults in Europe?

MobileAge

Policy priority: The General Data Protection Regulation (GDPR) has caught the attention of consumers, producers and media. This brief focuses on the GDPR and the market for service providers, especially European SMEs, to deliver innovations to older adults.

1. Summary

- The GDPR introduces new requirements on how to collect and process personal data.
- Informed consent can be hard to achieve for users in general and even harder for older adults with cognitive decline. Evaluating the consequences of data processing can increase the difficulty.
- Artificial Intelligence (AI) can process trivial data elements to generate sensitive data such as political preference or sexual orientation.
- Some of the existing AI services have a requirement to share the data with a third party, spreading the data wider, and thus making informed consent harder.
- Access to large amounts of personal data is important both to train AI and to reach large markets. European SMEs generally do not have access to such data.
- Most SMEs cannot compete with services delivered at zero cost. Are there ways for the GDPR to give European SMEs better access to the market of online services?

2. Background

A flood of website banners and e-mails asking for consent to process personal data was the first visible impact of the GDPR.[1] This was both confusing and annoying for many users, in particular for those older adults already challenged when interacting with online services.

Personal Data can be processed for many different purposes. For example, statisticians can predict customer demand to help retailers to plan their stock levels of different products. More detailed analysis of individual behaviour can predict future needs to influence customers' habits and increase sales. Both the book suggestions from Amazon and the pregnancy prediction score[2] developed by Target, have increased sales of books and baby-related goods respectively. Now, similar techniques are being developed to deliver better online services from the municipalities to older adults. However, this development can have unintended consequences.

Local online services can deliver better services to their citizens, but data processing can impact citizens' lives for the worse. Regulation and vigilance are key to reap the benefits of data usage.

The recent Cambridge Analytica scandal[3] shows how data processing can also be used to manipulate democratic elections. A few dozen Facebook "likes" can reveal gender, sexual orientation, and predict which party a user would be likely to vote for. This way, trivial data can be processed to produce very sensitive data.

3. Local governments prepare to use centralised AI services

Sensors in bracelets and cars, smartphones, smart homes, and a range of services to track online behaviours, all add to the growing stream of personal data. Powerful tools and servers are needed to process such large amounts of data. To use speech recognition to control a device the audio data is sent over the web to be processed and converted into a command to be executed by the smartphone.

Today modern municipalities and smart cities seek to use AI to reduce cost and to better support their citizens, including older adults.

Both the steady growth in data sources and the provision of increasingly powerful AI tools can accelerate the development of innovative solutions for municipalities and older adults.

Nowadays municipalities are preparing to send their citizens' personal data to AI providers to deliver more

1 https://www.nytimes.com/2018/05/23/technology/personaltech/what-you-should-look-for-europe-data-law.html
2 https://www.nytimes.com/2012/02/19/magazine/shopping-habits.html?pagewanted=9&_r=1&hp
3 https://www.theguardian.com/technology/2018/mar/17/facebook-cambridge-analytica-kogan-data-algorithm

innovative services. Just like for any other public procurement, municipalities choose the vendor on behalf of their citizens. Citizens, however, should be able to withdraw their consent to the processing of data, an operation which proves hard to implement when the data has already been shared by the municipality with the AI provider.

The way in which the data is shared with the AI provider can also be crucial to assure fair competition among different AI providers.

Fair competition should be based on benefits for the users. Imagine an SME who has invented a new AI algorithm with the potential to cut the heating cost for the households by 50 %. To prepare this new service for the market, the company will need access to training data from the potential users.

Moreover, users and municipalities may expect online services to be "free" and prefer to pay via exposure to advertisements. The market for advertisements is currently dominated by a few large enterprises, a situation which requires more extensive discussion around competition. In the European landscape, taking stock of the implementation of the GDPR, there is room to intervene efficiently on both innovation and competitiveness.

European SMEs could team up to collaborate on service development and on advertisements in a way that is well aligned with the GDPR. The current massive government digitalisation can then be the basis for a new co-operation in Europe. Some components have already been successfully developed with support from the EU, such as the machine translation service, eTranslation.[4]

Back in 1967, the European Airbus was launched more as a political decision than a commercial one. The company has successfully competed with Boeing, and has become the largest supplier worldwide by 2003.[5] Under the current regulatory framework, it is time to strengthen the joint impact of European investment in R&D, and embark on a "Digital Airbus" to facilitate and co-ordinate an open SME collaboration.

4. "Forced consent"

"Forced consent" refers to the practice of offering two basic, but mutually excluding, choices to users of an online service: either the users agree to be tracked to receive personalised ads, or the user is forced to stop using the service. On the day the GDPR came into force, the NOYB (None of Your Business)[6] NGO has filed four lawsuits against Google, Facebook and two Facebook-owned businesses, Instagram and WhatsApp, to determine whether the consent related to their services is forced or not.

Two prerequisites for the consent are needed to enable a real change in the way personal data is being processed. Firstly, the **user needs to be given a free and real choice**. Secondly, the user needs to understand and use the options to make an **informed agreement.**

Recital 32 of the GDPR states that

"Consent should be given by a clear affirmative act establishing a freely given, specific, informed and unambiguous indication of the data subject's agreement to the processing of personal data relating to him or her"

And recital 42 of the GDPR states that

"Consent should not be regarded as freely given if the data subject has no genuine or free choice or is unable to refuse or withdraw consent without detriment."

Indeed, some of the consent forms seem to ask for permission to proceed to collect and process data in much the same way like before – or stop using the service. This can be challenging since there are hardly any alternatives for the most popular online services for older adults or for other groups of citizens. The consent and data sharing will need to be particularly carefully designed for a public mandatory service provided with the help of a third party AI services.

5. GDPR and "free" services

The user preference for "free" services where the payment is not immediately visible can prevent SMEs from introducing new services to the growing number of older adults and to the population in general. **The GDPR has the potential to give back the ownership of private data to the users.** Can the GDPR also have the potential to adjust the online service market so that users do not predominantly pay indirectly via advertisement exposure?

In the public sector, a free service means not only

4 https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eTranslation
5 https://www.ft.com/content/c9a9a77c-db07-11e3-8273-00144feabdc0
6 https://noyb.eu/

zero price tag, but also that the rigid public procurement regulations do not apply. The hassle and the cost to prepare a call for tenders, to evaluate the bids and to deal with potential complaints can all be dropped. Moreover, the decision to "purchase" can often be taken without management involvement.

The free online services are paid for by the advertisements embedded in the service, similar to free newspapers. Google provides a range of popular free services and had 96% of its revenue from advertisements in 2011. In addition to revenues from advertisements the personal data can be sold to a third party. Personal profiles with information about our interests and online behaviour can make the digital advertisements very relevant for the users and therefore valuable for the advertisers. In this business model, the users trade private information against services and advertisements.

The public sector's use of free services can have two unintended consequences. One is the relay of personal data to private enterprises. The second is a significant hindrance for start-ups and their innovations to reach the European market. Start-ups typically do not have access to personal profiles from many users, and will therefore not be able to compete in the market of personalised advertisements, and thus unable to deliver service at zero cost. Today, a start-up can liaise with one of the larger companies with access to many personal profiles, or be bought by one of them to provide "free" services. Prominent examples include Fast Search and Transfer from Norway, and Skype and Minecraft based on Swedish initiatives. Tomorrow, they may be able to join a "Digital Airbus" where advertisements are organised in a new way.

Many of the projects supported by the Horizon 2020 Programme will have innovative results, designed to create jobs and added value for European citizens. To increase the return on this European investment we need to ensure a level playing field to enable more start-ups to deliver innovative services to the public sector without access to personal profiles.

It is now up to court cases such as those filed by NOYB to establish if the GDPR can be used to drive a market adjustment to open up for stronger SME participation.

Policy recommendations

Many of us are willing to share personal data in exchange for great services, for example social media, translation services, and speech recognition. We all need to share data with our government to make the government service work. If governments share personal data with a central AI service provider then the informed consent and consent withdrawal can become difficult. The following recommendations can therefore be made.

- Support **research to shape the consent dialogue** to make sure that older adults can give their informed consents, and withdraw from it when needed. User testing and supporting materials including videos and examples can be included in this research.
- **Standardise consent dialogues** to allow users to become familiar with the process. A standardised dialogue can also enable the user to configure settings that can applied across multiple websites.
- Find ways to **enable the user to explore and monitor the shared personal data**. A list of actual data items collected from the user, together with brief explanations of what they are, can help to make the user better informed.
- **Anonymise data** before sharing with a third party services provider, as far possible.
- Explore how the Public Service Information directive (PSI) can **support access to anonymised training data**. Access to training data can enable SMEs to compete more efficiently.
- **Monitor GDPR court cases** to understand if there are ways to open online service markets for European SMEs.
- **Start a "Digital Airbus"** to facilitate an open SME collaboration to create new services for older adults, designed to meet European needs and to conform to European regulations.

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